802.11g Wireless PCI Adapter

Model # AWLH3026

User's Manual

Ver. 2B

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1. Introduction

Thank you for purchasing the 802.11g Wireless PCI Adapter. This PCI Adapter is designed to comply with IEEE 802.11g Wireless LAN standard and is suitable for desktop computers.

This Adapter supports 64/128-bit WEP data encryption that protects your wireless network from eavesdropping. It also supports WPA (Wi-Fi Protected Access) feature that combines IEEE 802.1x and TKIP (Temporal Key Integrity Protocol) technologies. Client users are required to authorize before accessing the APs or AP Routers, and the data transmitted through the network is encrypted/decrypted by a dynamically changing secret key.

1.1 Package Contents

Before you begin the installation, please check the items of your package. The package should include the following items:

- One 802.11g Wireless PCI Adapter
- One Detachable Antenna
- One Quick Installation Guide
- One Installation CD (Driver/Utility/Manual)

1.2 Installation Consideration

Designed to traverse distances up to 900 feet (~300 meters), the **Wireless PCI Adapter** lets you access your network from your computer virtually anywhere you want. Keep in mind, however, that the number and thickness of walls, ceilings, or other objects that the wireless signals must pass through may limit the range. Typical ranges vary depending on the types of materials and background RF noise in your home or business. The key to maximizing the transmission range is to follow these basic principles:

1. Keep the number of walls and ceilings between the Access Point and your receiving device to a minimum. Each wall or ceiling can reduce your Wireless product's range from 3-90 feet (1-30 meters.) For some businesses or for a large residential home deployment, it may be beneficial to have more than one access point with overlapping coverage.

2. Be aware of the direct line between Access Points and computers with Wireless Adapters – A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle the wall will appear as if it were over 42 feet (14 meters) thick! Try to make sure that the Access Points and Wireless Adapters are positioned so that the signal will travel in as straight a line through a wall or ceiling as possible for better reception.

3. Building Materials make a difference – A solid metal door or aluminum studs can have a negative effect on range. Try to position Access Points and computers with Wireless Adapters so that the signal passes through drywall or open doorways and not other materials.

4. Make sure that the antenna is positioned for best reception by using the Wireless Utility included with your **Wireless PCI Adapter** to monitor the Signal Strength and Link Quality.

5. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.

For the average residence, range should not be a problem. If you experience low or no Signal Strength in areas of your home that you wish to access, consider positioning the Access Point in a central location between the computers with the Wireless Adapters. Additional Access Points can be connected to provide better coverage in rooms where the signal does not appear as strongly as desired.

2. Installation

This section provides instructions on how to install the **Wireless PCI Adapter**. Be sure to turn off your computer before inserting the Adapter.

For Windows 98SE and ME users, you may be prompted to insert the Windows 98SE or ME CD during the driver installation. Be sure to have your Windows 98SE or ME CD ready.

2.1 Install Utility and Driver

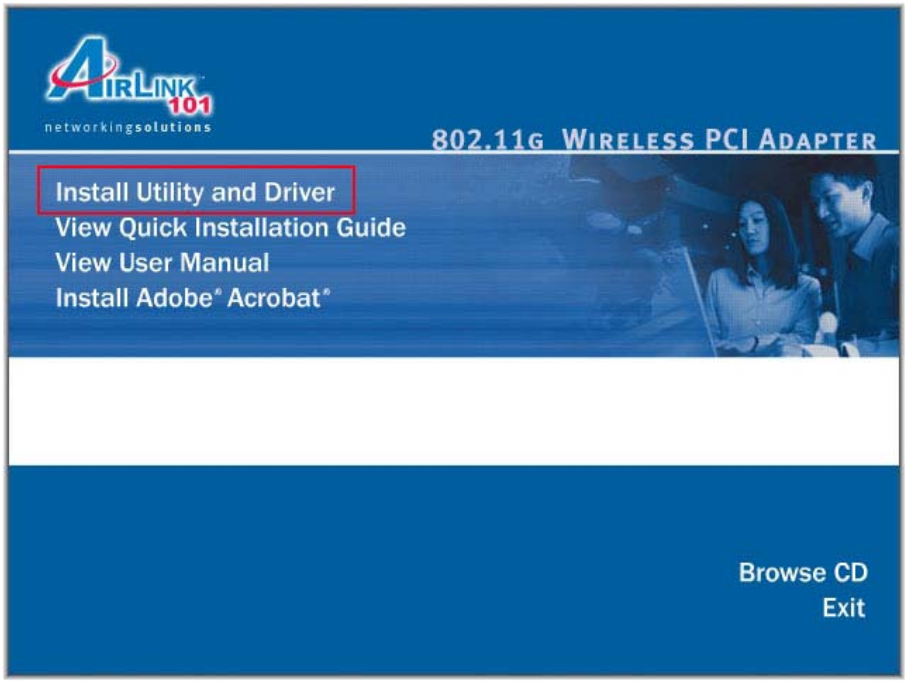
Step 1 Insert the **Wireless PCI Adapter** into an available PCI slot and turn on your computer

Step 2 After turning on the computer, Windows will launch the **Found New Hardware Wizard**. The Found New Hardware Wizard appears differently depending on your operating system. Click **Cancel** to quit the wizard and insert the Driver & Utility CD into your CD drive

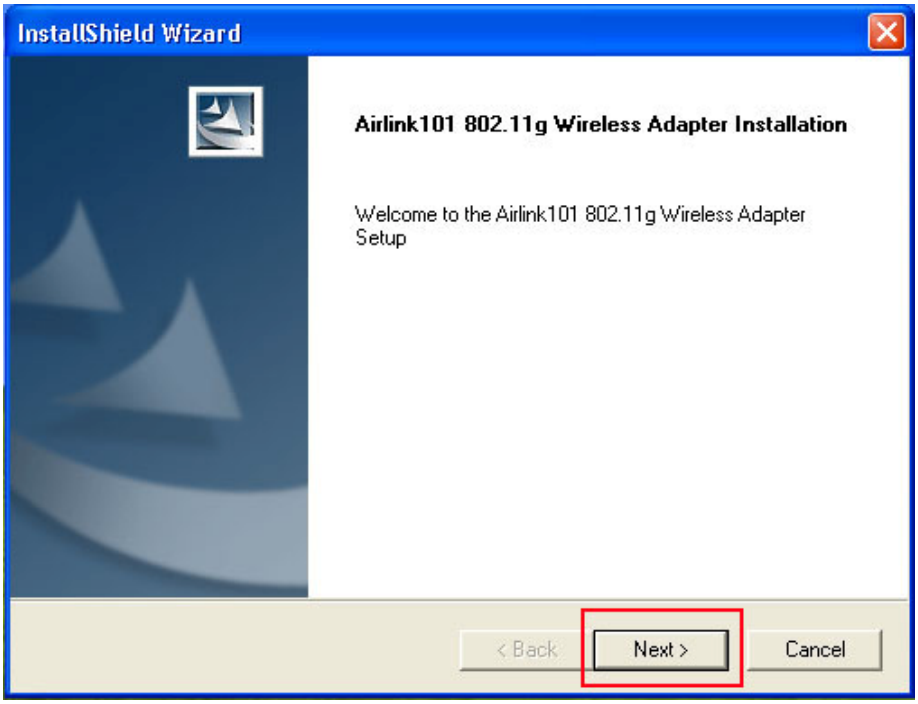
Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Network Controller
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

Note: If the autorun screen doesn't appear automatically go to **Start**, **Run**, and type **D:\autorun.exe** (where **D** is the letter of your CD drive) and click **OK**.

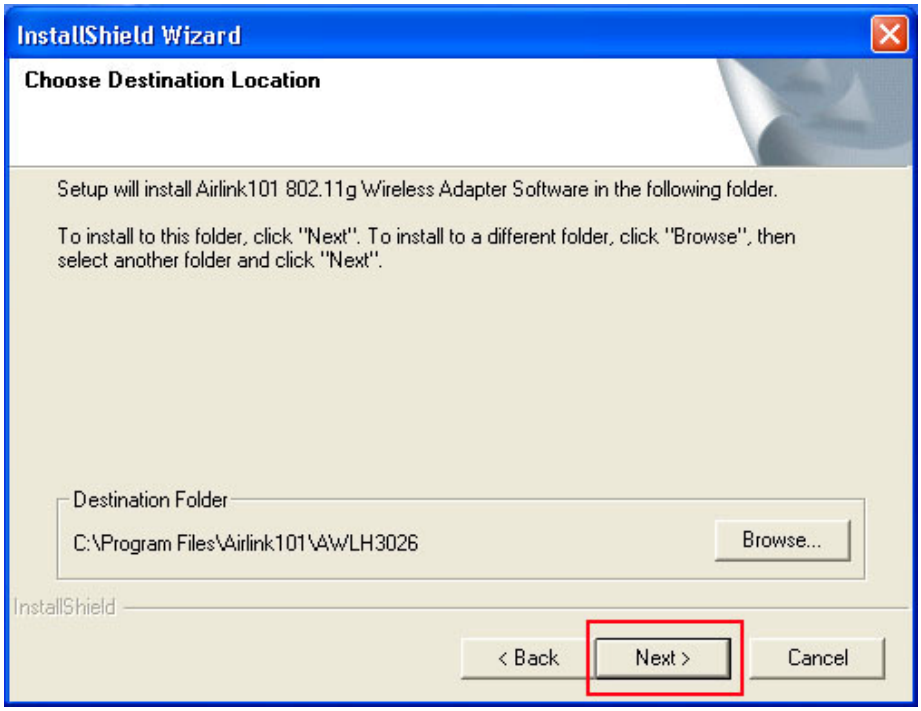
Step 3 Select **Install Utility and Driver** from the setup menu



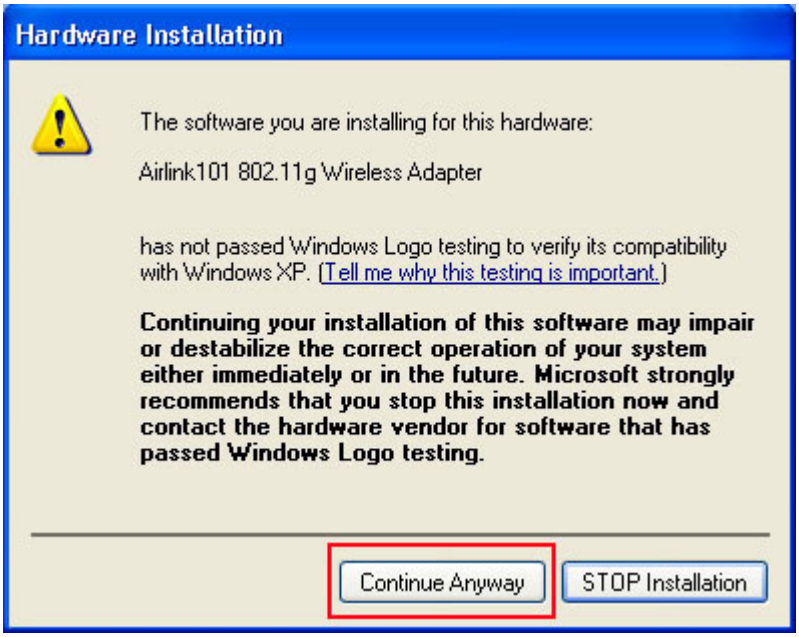
Step 4 Click **Next** at the welcome screen


InstallShield Wizard
Airlink101 802.11g Wireless Adapter Installation
Welcome to the Airlink101 802.11g Wireless Adapter Setup
< Back
Next >
Cancel

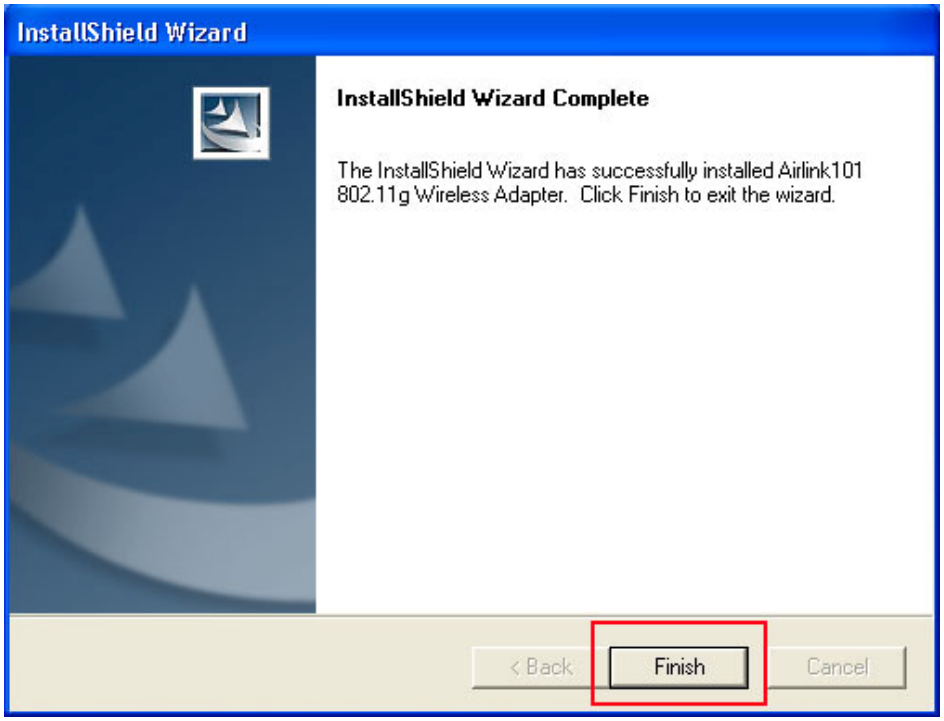
Step 5 Click **Next** to accept the default destination folder


InstallShield Wizard
Choose Destination Location
Setup will install Airlink101 802.11g Wireless Adapter Software in the following folder.
To install to this folder, click "Next". To install to a different folder, click "Browse", then select another folder and click "Next".
Destination Folder
C:\Program Files\Airlink101\AWLH3026
Browse...
InstallShield
< Back
Next >
Cancel

Step 6 Click **Continue Anyway** at the Windows Logo Screen
(For Windows 2000, click **Yes** at the Digital Signature Not Found prompt)


Hardware Installation
The software you are installing for this hardware:
Airlink101 802.11g Wireless Adapter
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Step 7 Click **Finish** and reboot your computer


InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Airlink101 802.11g Wireless Adapter. Click Finish to exit the wizard.
< Back
Finish
Cancel

2.2 Install Driver

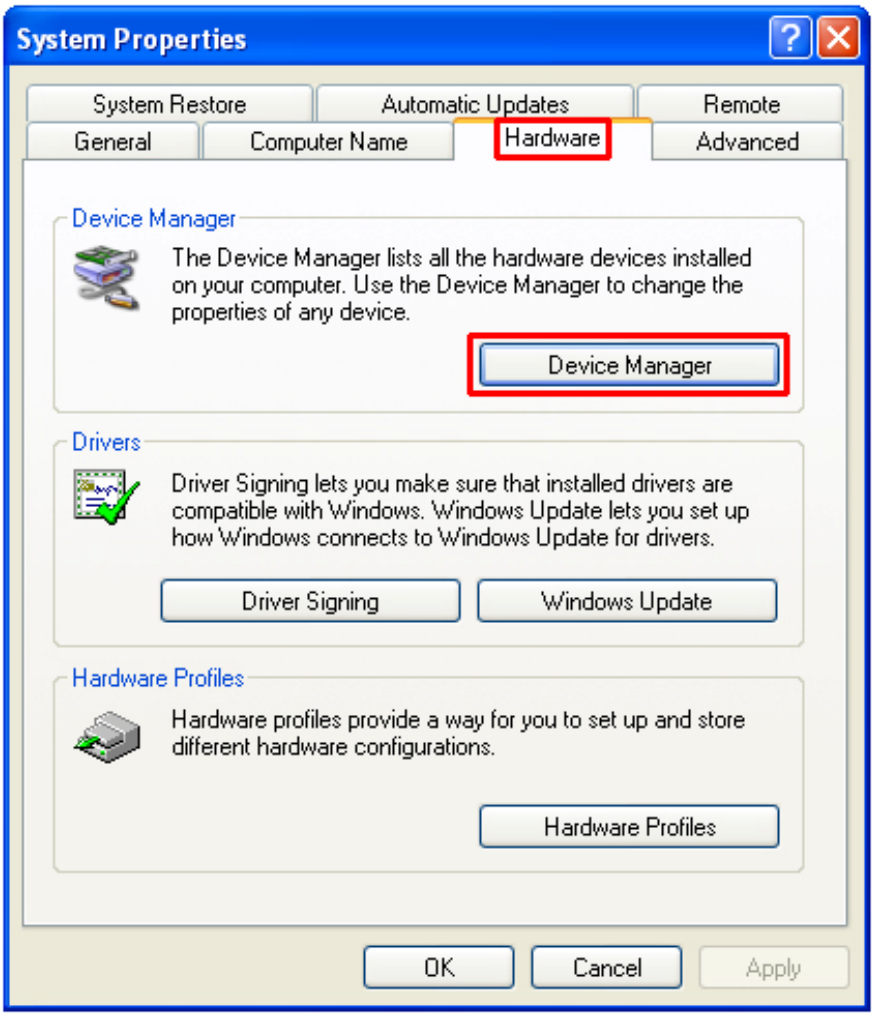
Drivers are automatically installed when installing the Utility software. If you want to install only the driver, the drivers are located in **D:\Drivers** (where **D** is the letter of your CD drive)

2.3 Verify Driver Installation

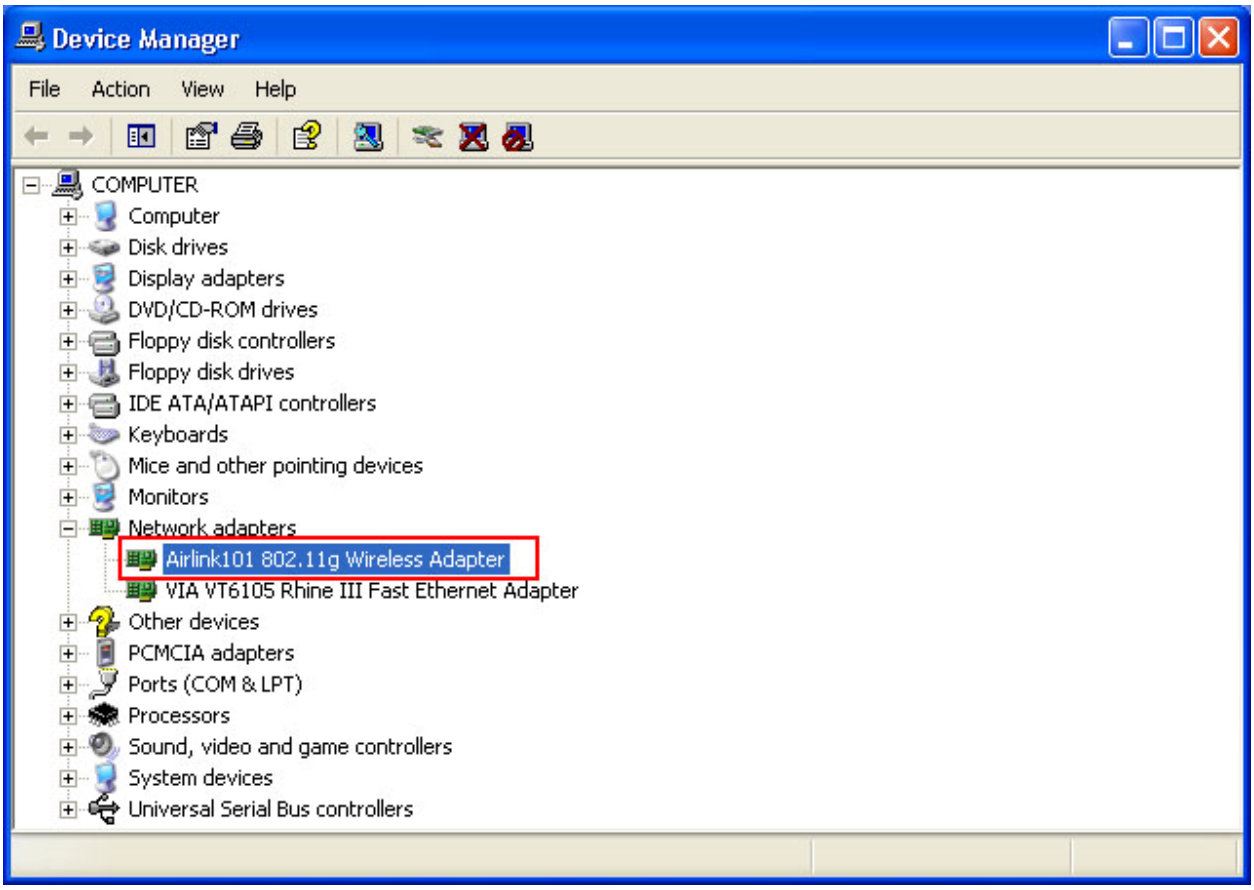
To verify if the driver has been installed successfully, please perform the following steps.

Step 1 Right-click on **My Computer** from your desktop and select **Properties**.

Step 2 Select the **Device Manager** tab. (For Windows 2000/XP, select the **Hardware tab** first then click on **Device Manager**).


System Properties
System Restore
Automatic Updates
Remote
General
Computer Name
Hardware
Advanced
Device Manager
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
Device Manager
Drivers
Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.
Driver Signing
Windows Update
Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations.
Hardware Profiles
OK
Cancel
Apply

Step 3 Expand **Network adapters** from the list and verify that **Airlink101 802.11g Wireless Adapter** is listed and no yellow question mark is beside it.



If **Airlink101 802.11g Wireless Adapter** is not listed, or you see a yellow question mark beside it, please re-install the driver again.

3. Configure the Wireless PCI Adapter

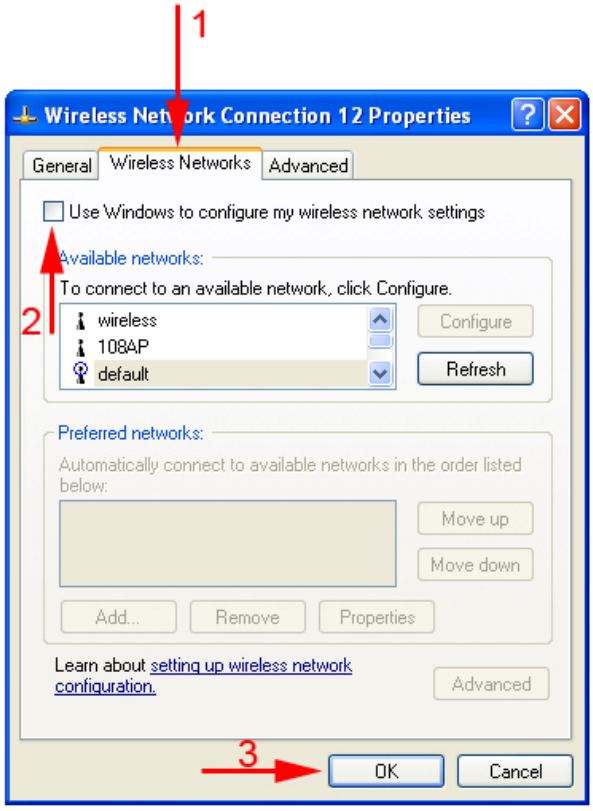
This section describes how to connect your **Wireless PCI Adapter** to a wireless network.

Note to Windows XP Users:

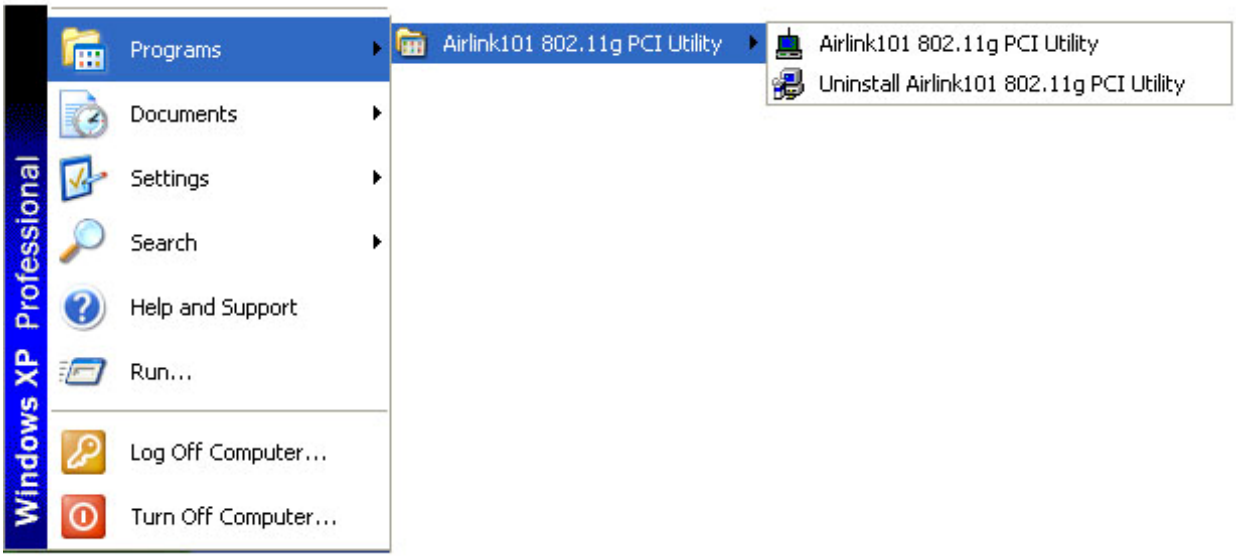
You must disable the Wireless Zero Configuration Utility in order to use the bundled Wireless Utility. Please follow the steps below to disable XP's wireless utility.

Step 1 Double-click on the **Wireless Network Connection Icon** in the system tray and then click on **Properties** or **Advanced**.

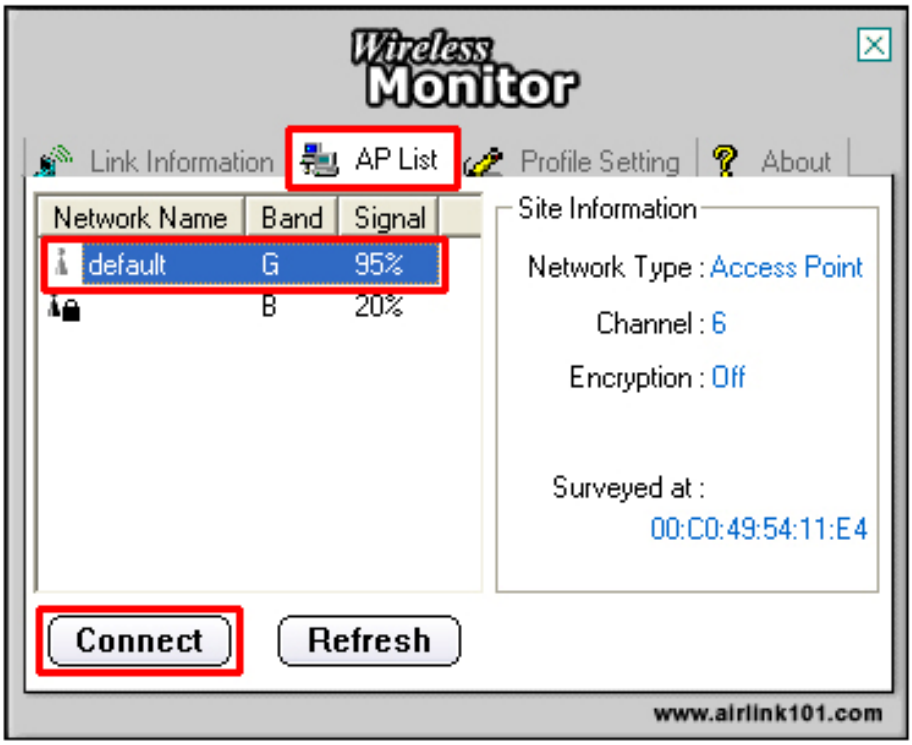
Step 2 Go to the **Wireless Networks** tab, uncheck the **"Use Windows to configure my wireless network settings"** check box and click **OK**.



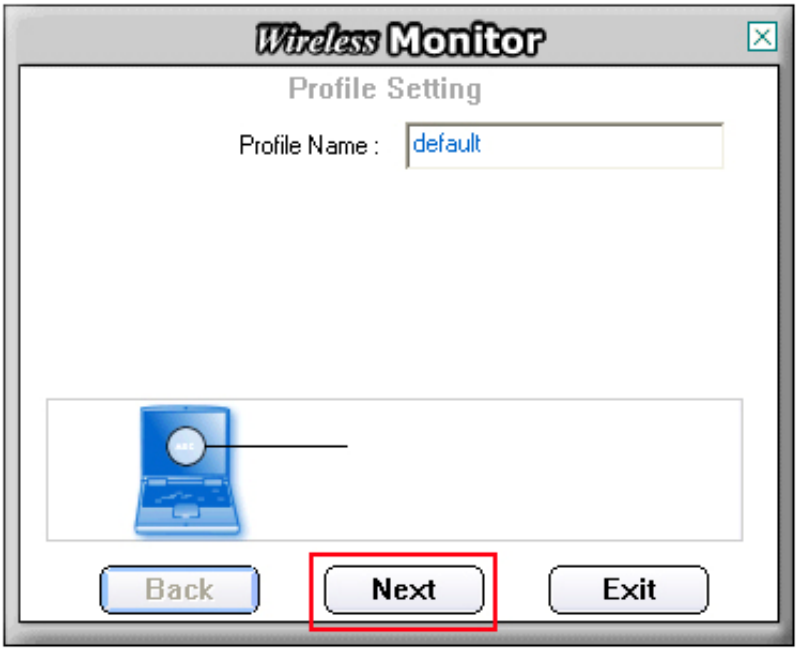
To open the Wireless PCI Adapter's utility go to **Start > (All) Programs > Airlink101 Wireless Utility > Wireless Utility**.



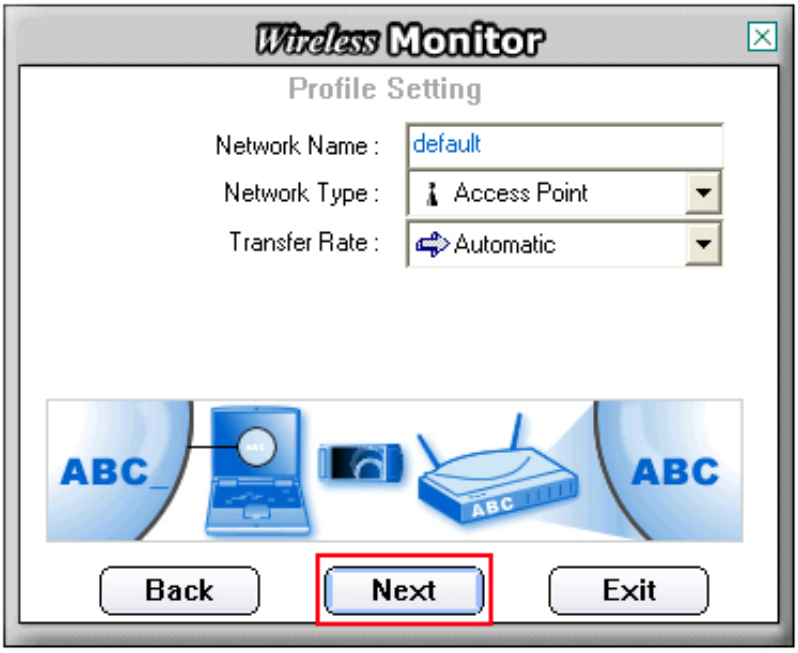
Step 1 Go to the **AP List** tab, select the **SSID** (Network Name) of the wireless network you wish to connect to, and click **Connect**.



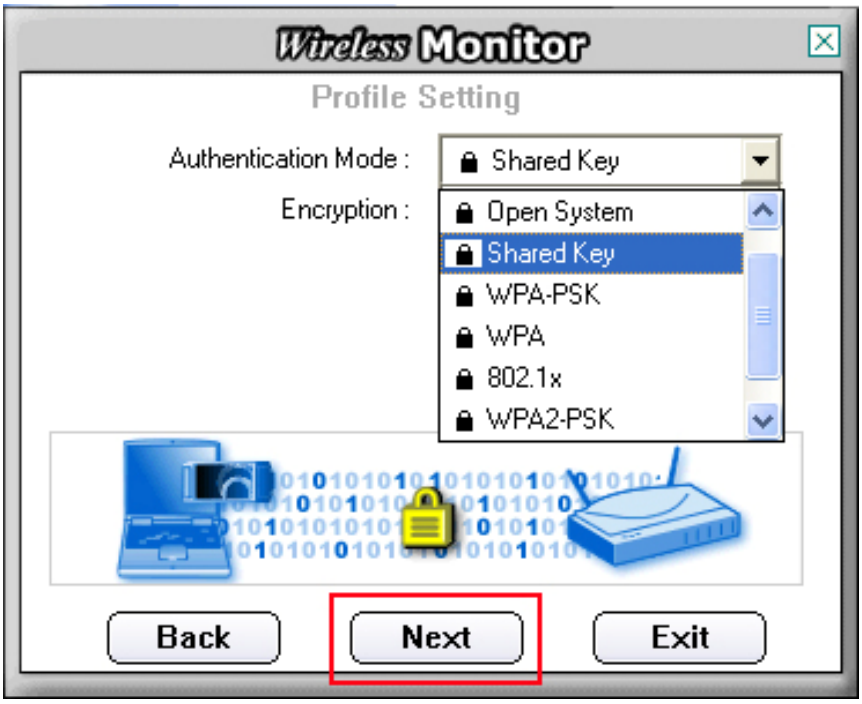
Step 2 If encryption is not enabled for the selected access point / router, skip to step 6. Otherwise, enter a **profile name** for your wireless setting and click **Next**.



Step 3 Verify that the **Network Name** matches the **SSID** of your wireless network and click **Next**.

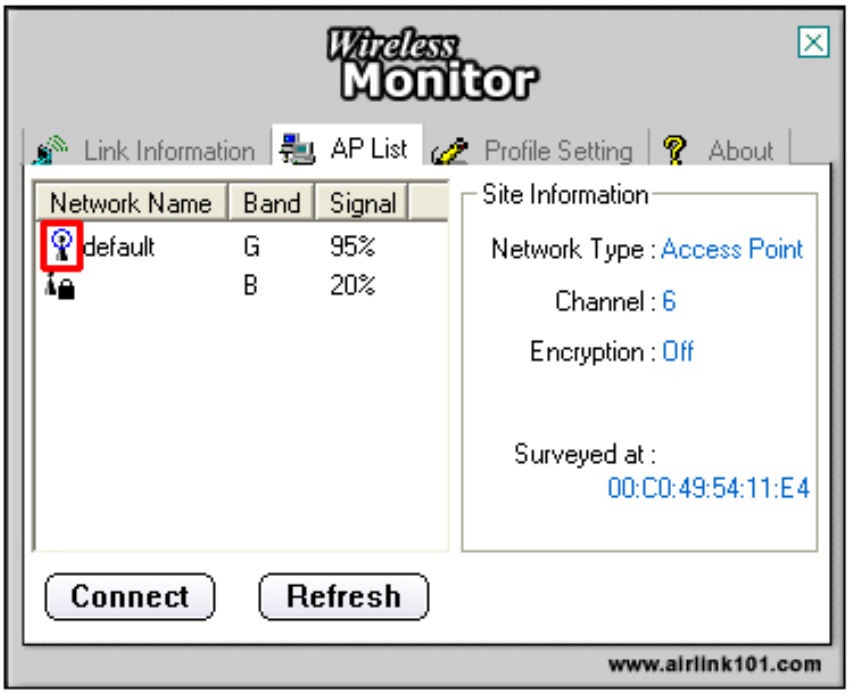


Step 4 Please select the proper encryption setting for your wireless router or access point. Click **Next**.



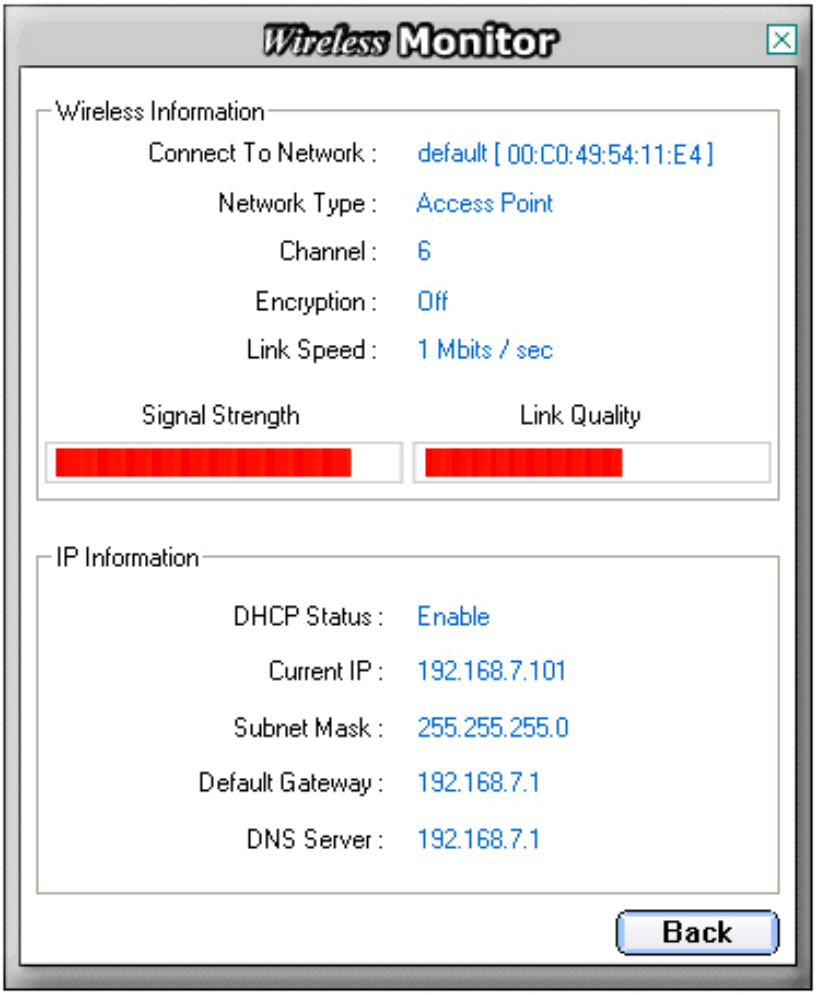
Step 5 Follow the on-screen instructions to complete the encryption settings. Click **Complete** when finished.

Step 6 You should see a blue circle around the antenna icon indicating a valid connection.



Step 7 Go to the **Link Information** tab and click on the **More** button.

Step 8 Verify that you are receiving adequate Signal Strength and Link Quality and that you have been assigned a valid IP address (instead of all 0's).



If you do not have adequate Signal Strength, try re-orienting the Access Point and/or the Wireless PCI Adapter to get a better reception.

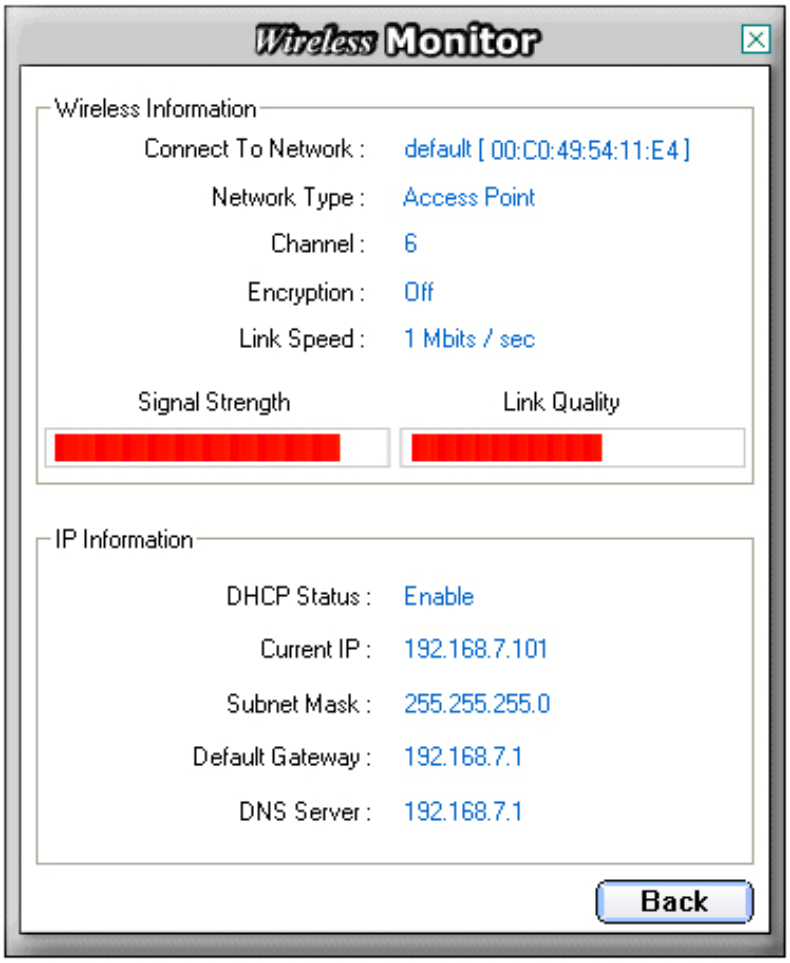
4. Configure the Wireless Utility

This section describes the various functions of the Wireless Utility that you can configure, including the settings of wireless encryption.

4.1 Link Information

The **Link Information** tab shows the current profile in use as well as details of the current network connection.

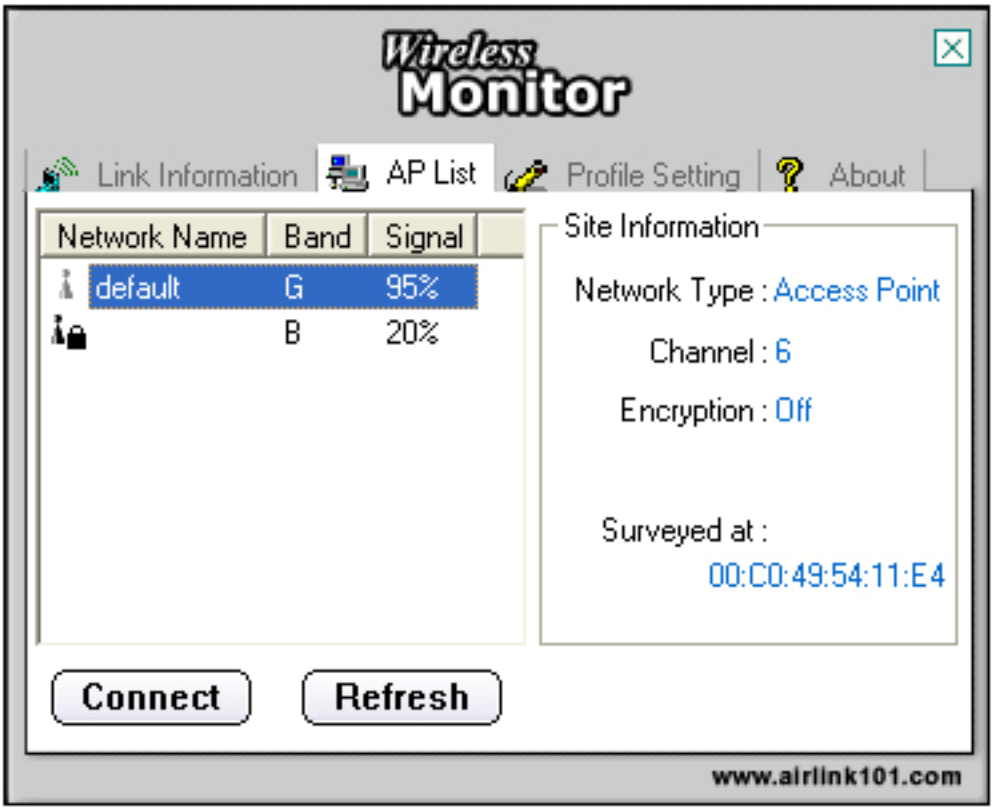
Click on the **More** button to see the details of the current network connection.



The Wireless Information displays the current wireless network you are connected to as well as various other statuses such as the Signal Strength and your assigned IP address.

4.2 AP List

The **AP List** tab displays all the available Access Points detected by the Wireless PCI Adapter. Simply select the desired Access Point you wish to connect to and click **Connect**.



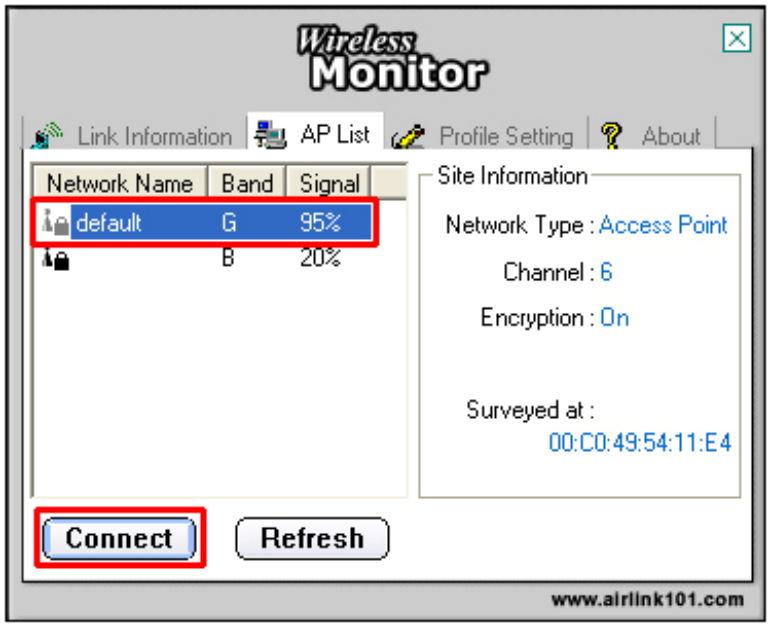
The **Site Information** displays a list of status for the selected AP, including the Channel number and the Encryption status.

4.3 Configure Encryption Settings

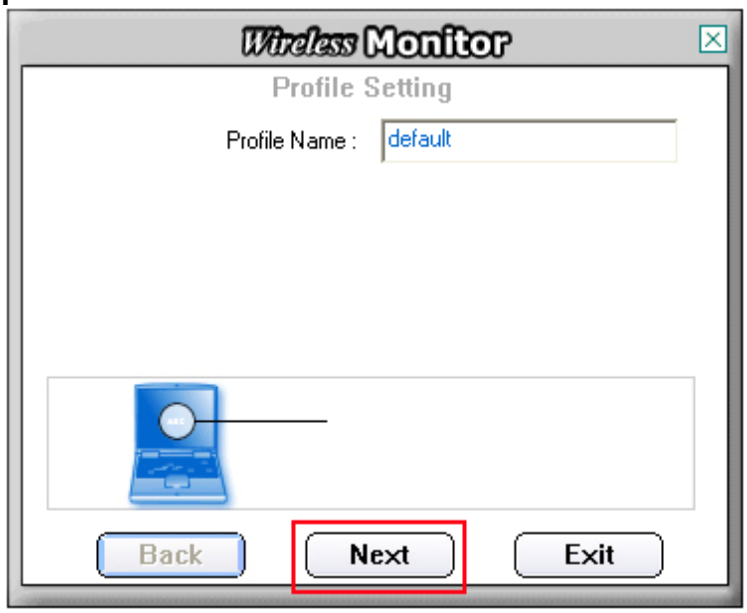
This section describes how to configure encryption settings for the **Wireless PCI Adapter**.

Note: The encryption settings you set for the Adapter must match the same settings of the Access Point/Wireless Router; otherwise, the encryption will not work properly.

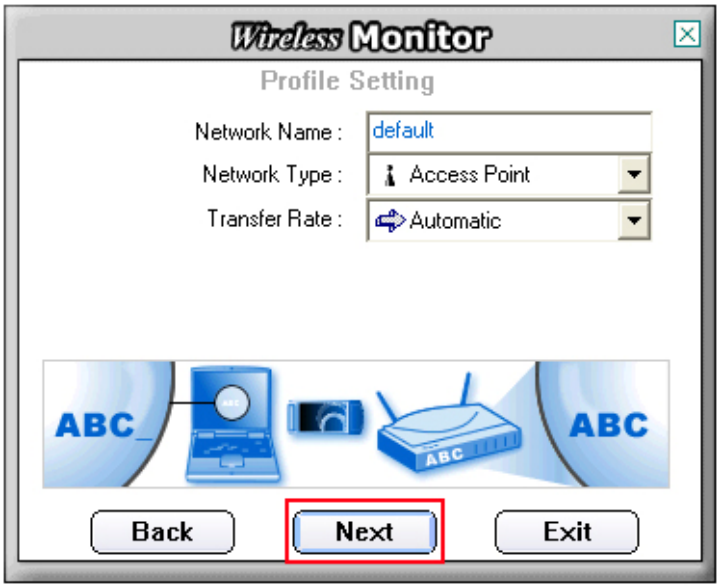
Step 1 From the **AP List** tab, select the Access Point/Wireless Router you want to connect to and click **Connect**.



Step 2 Verify the **profile name** is correct and click **Next**.

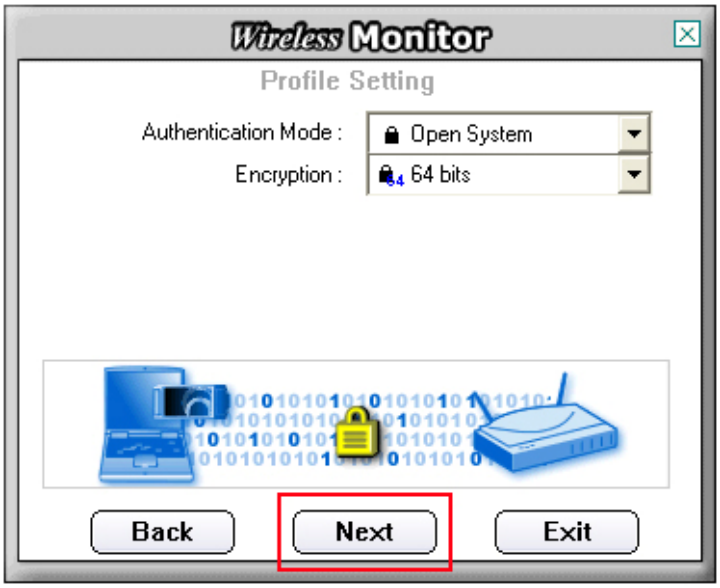


Step 3 Verify the **Network Name (SSID)** is correct and click **Next**.

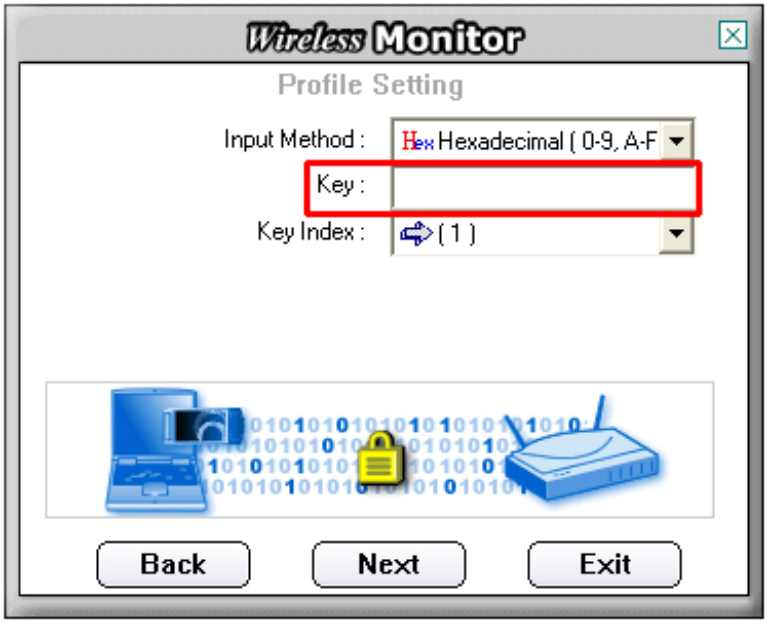


For WEP Settings:

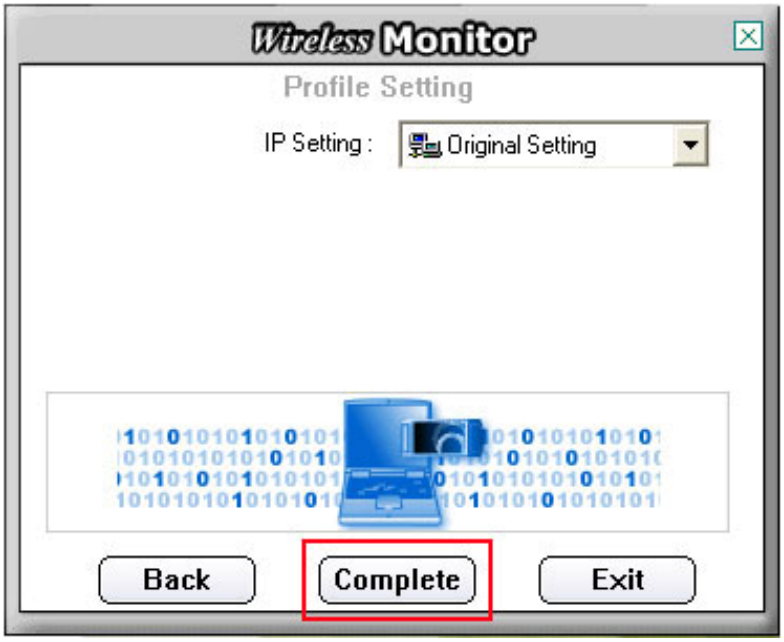
WEP Step 4 Select the appropriate **Authentication Mode** and **Encryption** settings and click **Next**.



WEP Step 5 Select the appropriate **Input Method**, **Key** (password), **Key Index**, and click **Next**.

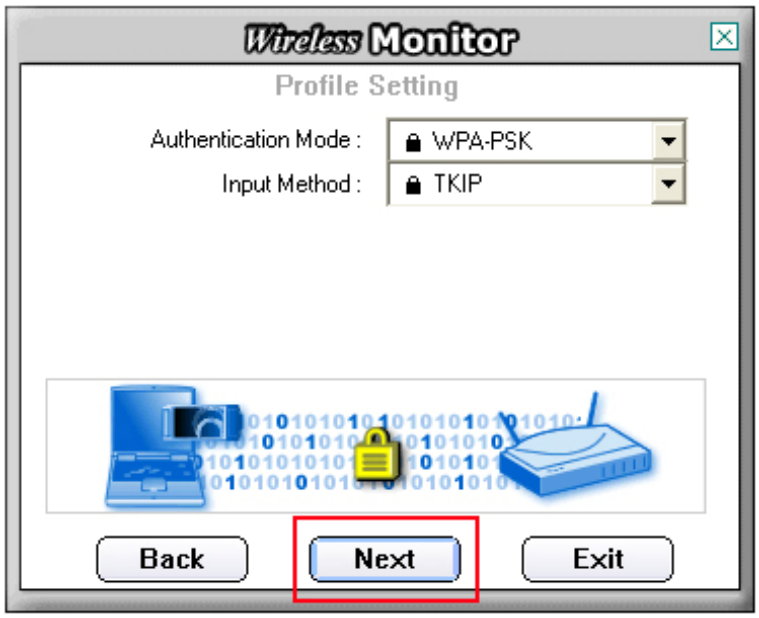


WEP Step 6 Click **Complete** to finish the settings.

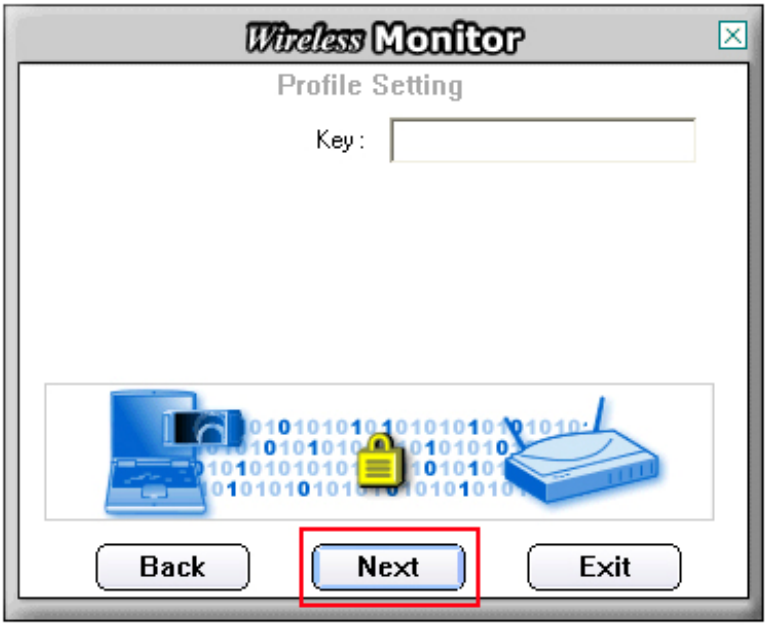


For WPA Settings:

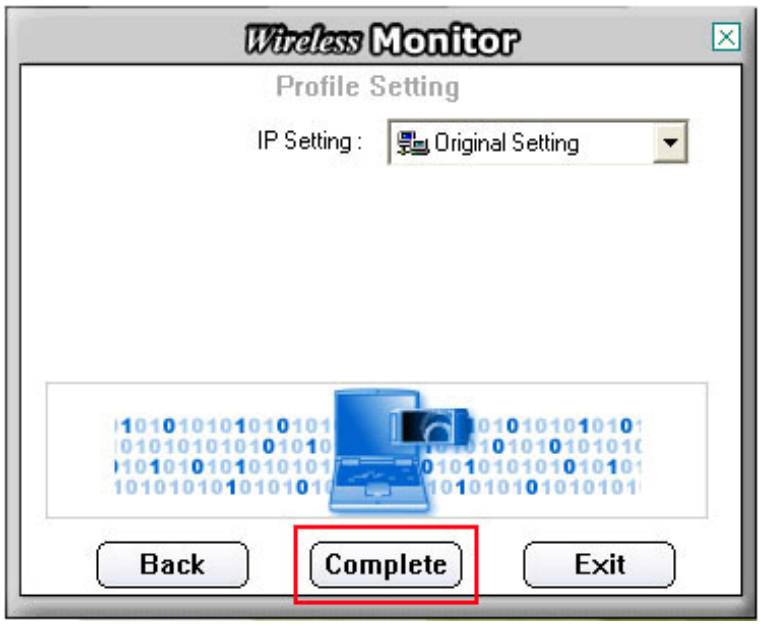
WPA Step 4 Select **WPA-PSK** and the appropriate **Input Method** and click **Next**.



WPA Step 5 Enter the **WPA Key** (passphrase) and click **Next**.



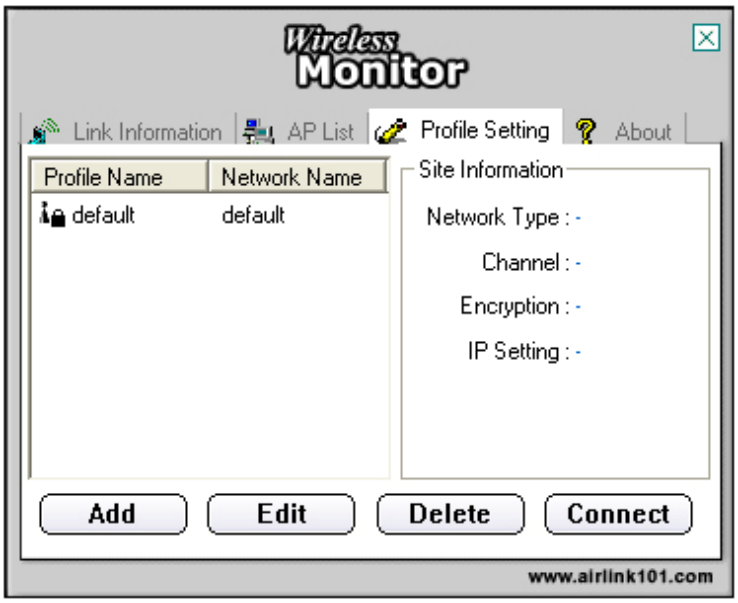
WPA Step 6 Click **Complete** to finish the settings.



Step 7 You should see a blue circle around the antenna icon indicating a valid connection. A lock icon beside the antenna indicates the connection is encrypted.

4.4 Profile Setting

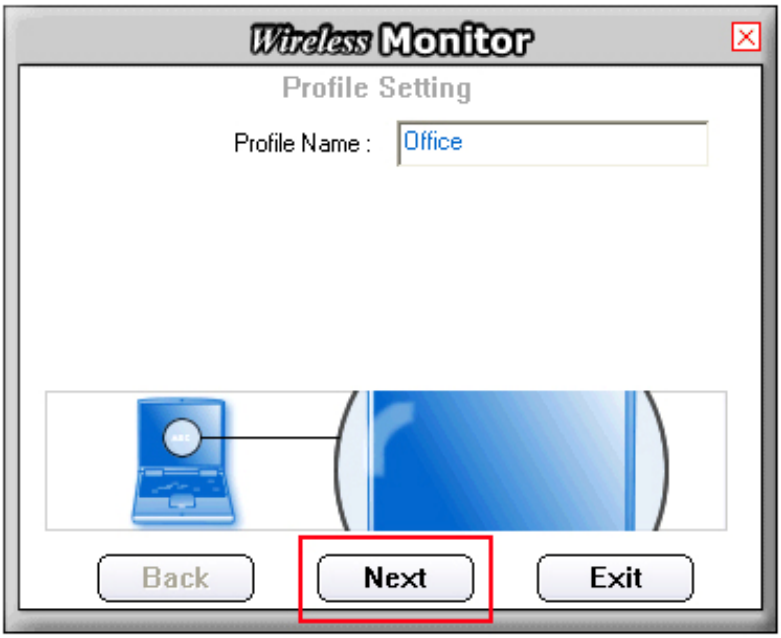
The **Profile Setting** tab lists all the profiles you have created. You can create new profiles for different network environments.



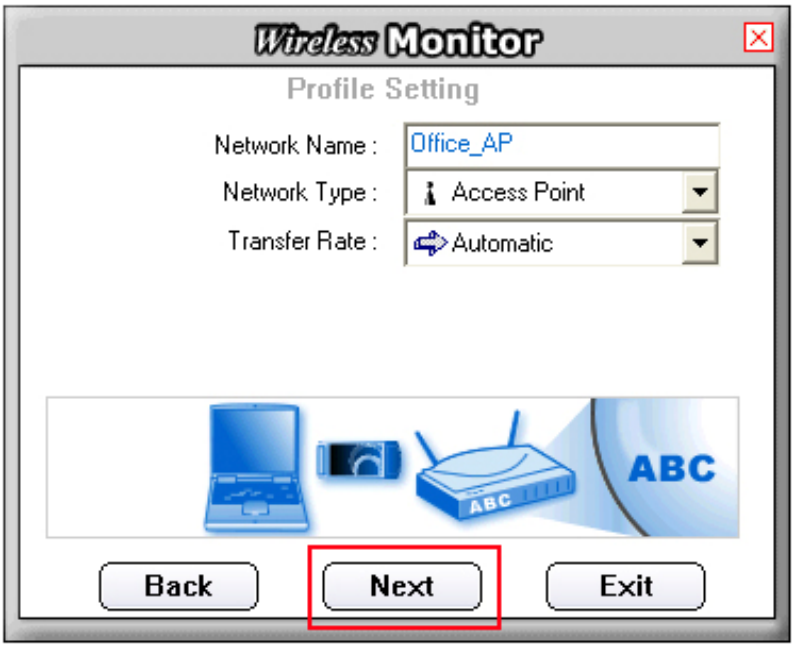
To add a new profile, follow the steps below:

Step 1 Click on the **Add** button.

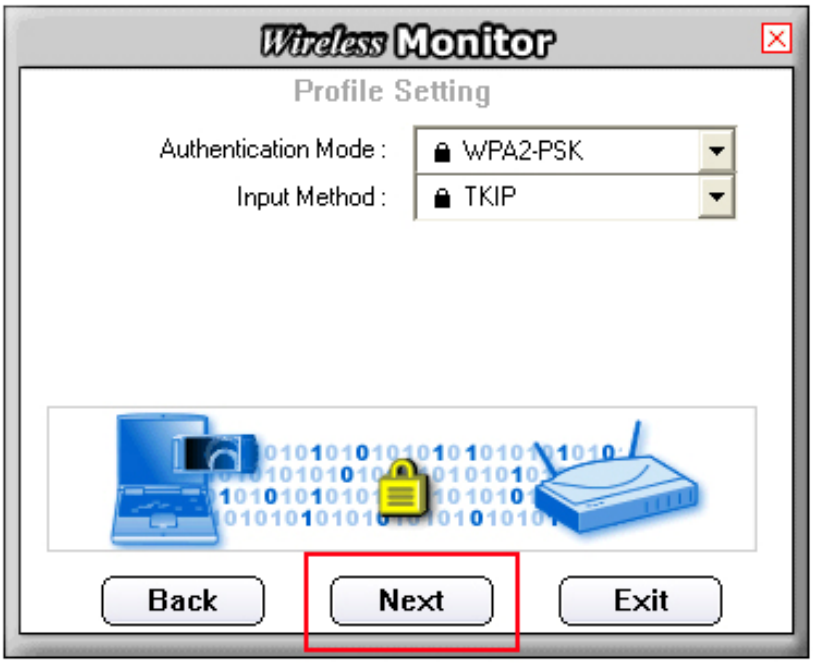
Step 2 Enter a name for your new profile and click **Next**.



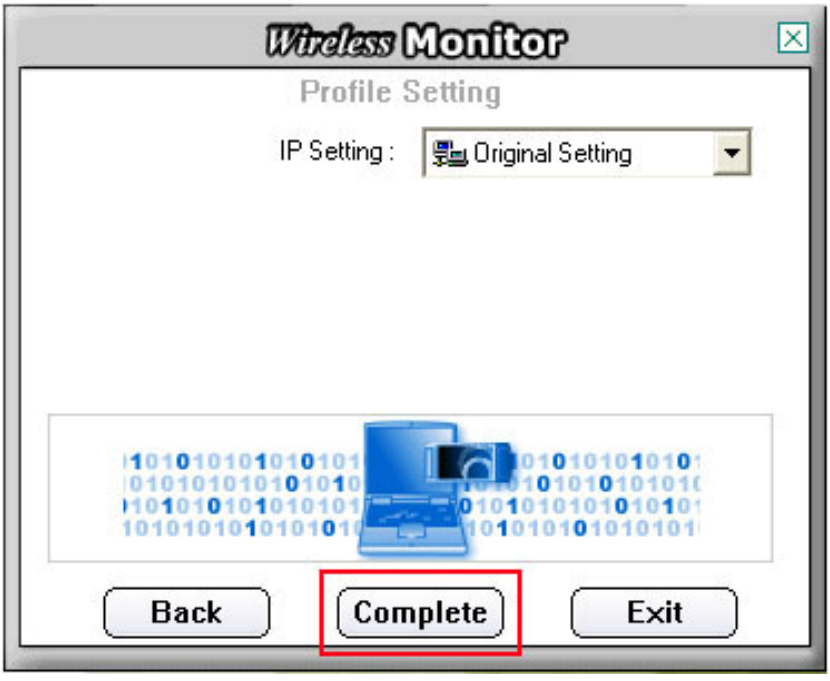
Step 3 Enter the SSID (Network Name) of the wireless network you want to connect to and click **Next**.



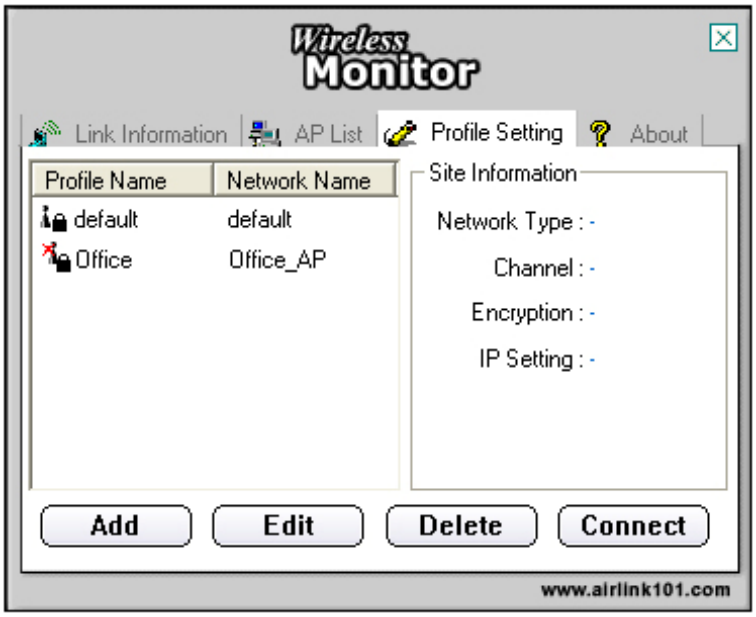
Step 4 Configure any encryption setting if required and click **Next**.



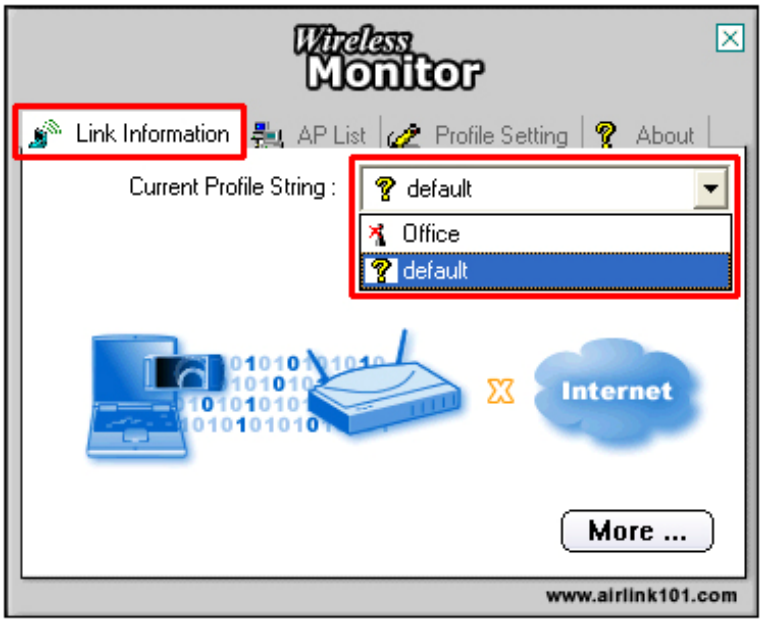
Step 5 Click **Complete** to finish the profile setting.



Step 6 Your new profile will be listed in the Profile List.



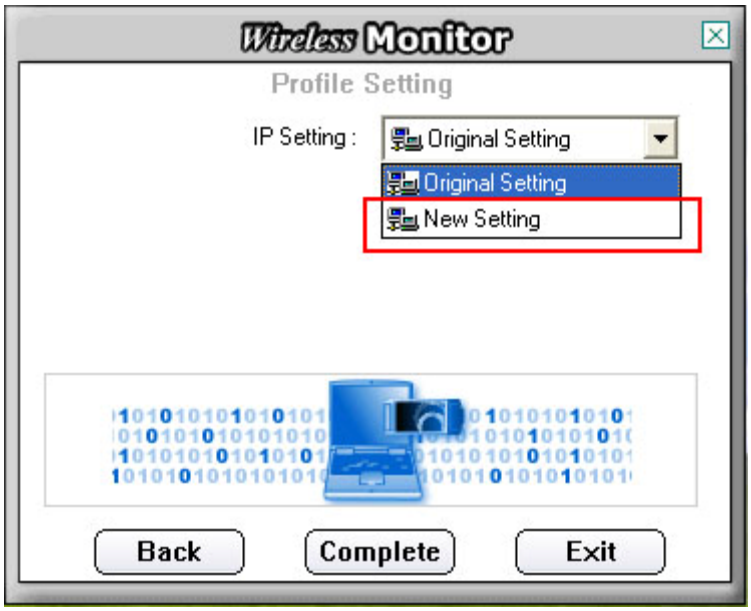
Step 7 You can quickly select which profile you want to use from the **Link Information** tab depending on your network environments without having to reconfigure the settings each time.



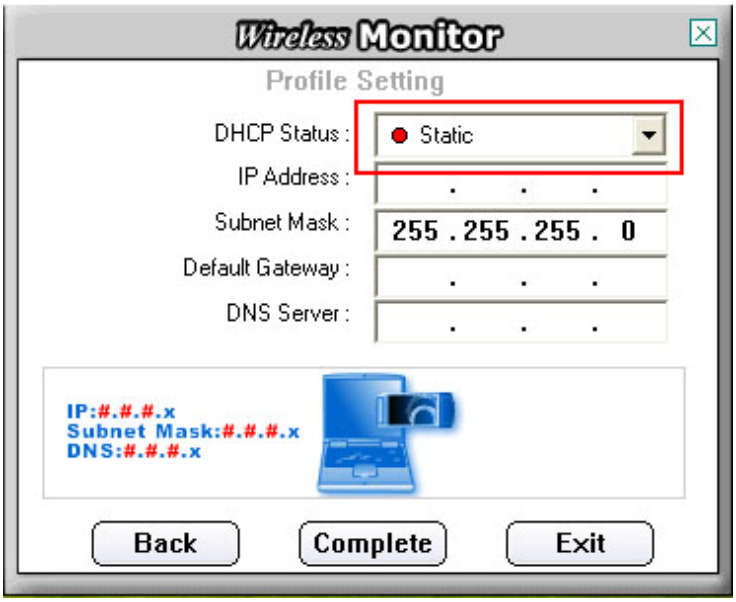
4.5 Static IP setting

To change the IP address of the wireless adapter to static IP, follow the steps below:

Step 1 On the last step of *4.4 Profile Setting*, under IP setting, select **New Setting**



Step 2 Select **Static**



Step 3 Enter in the information and click **Complete** to finish setting.

4.6 About

The About tab shows the Utility, Driver, and Firmware version as well as the MAC address of the **Wireless PCI Adapter**.

Technical Support

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*Theoretical maximum wireless signal rate based on IEEE standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate.

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